

REMARKS

Applicant, his principal representatives in Germany, and the undersigned have carefully reviewed the second, non-final Office Action of August 14, 2003 in the above-identified U.S. patent application, together with the prior art references cited and relied on in the rejections of the claims. Applicant, through the undersigned respectfully requests reconsideration of the rejections of the claims on the basis of the following remarks. While several of the dependent claims have been amended to overcome claim objections, it is believed that the claims as presented in the Second Preliminary Amendment, and as amended by the Amendment filed May 27, 2003, are patentable. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

The subject application discloses, and claims a printing unit of a rotary printing press. As set forth in the specification of the application, and as was summarized in the prior Amendment at pages 4 and 5 thereof, a forme cylinder 23 is placed in print contact with a blanket cylinder 37 and also with an ink transfer cylinder 22. The forme cylinder 23 could be placed in direct contact with an ink roller instead of with the ink transfer cylinder 22. In either of these two arrangements, ink is supplied to the forme cylinder 23 from an ink unit. The ink transfer cylinder 22 has a cylinder barrel with barrel ends. It is also provided with an intermediate support ring. That ring is shown at 26 in Fig. 2. The ink roller 21 has an intermediate support ring 24. The ink transfer cylinder 22 and/or the ink roller engages the forme cylinder 23 with their intermediate

ring or rings engaging a corresponding intermediate support ring on the forme cylinder.

In the second, non-final Office Action of August 14, 2003, the Examiner objected to claims 43 and 54 as having several minor informalities. Both of these claims have been amended in a manner which is believed to overcome the Examiner's objections.

Claims 41-46, 52 and 55 were rejected under 35 U.S.C. 103(a) as being unpatentable over newly cited U.S. patent No. 6,145,437 to Böck in view of previously cited U.S. patent No. 170,542 to Firm. Claim 49 was rejected as being unpatentable over Böck in view of Firm and further in view of U.S. patent No. 6,408,747 to Koppelkamm. Claims 51 and 52 were rejected as being unpatentable over Böck in view of Firm and further in view of U.S. patent No. 5,558,021 to Erhard. Claim 54 was rejected over Böck in view of Firm and Erhard and further in view of U.S. patent No. 5,865,120 to Zorn. Claim 56 was rejected as being unpatentable over Böck in view of Firm and further in view of U.S. patent No. 5,809,883 to Rodi.

In his discussion of his reasons for rejection of independent claim 41, the Examiner asserts that Böck teaches a printing unit having at least one forme cylinder 1 with a forme cylinder barrel; and an ink unit, the ink unit having at least one ink roller 4 and an ink transfer cylinder 3. This characterization of the Böck reference is not disputed.

The Examiner continues in his analysis to state that Böck does not show or teach the forme cylinder barrel having barrel end support rings, a forme cylinder intermediate support ring, and essentially all of the structure of the at least one of the

ink roller and ink transfer cylinders, as recited in claim 41. This structure which is missing from Böck is the provision of barrel end support rings, the provision of an intermediate support ring and the engagement of the intermediate support ring outer surface of the forme cylinder with the intermediate support ring outer surface of the intermediate support ring of the at least one of the ink roller and ink transfer cylinder.

The secondary reference to Firm is relied on for providing teachings of a forme cylinder with barrel end supports and with an intermediate support ring. Firm is also relied on as showing at least one other roller having barrel end support surfaces and intermediate supports. These barrel end and intermediate support rings of the forme cylinder and of the at least one other roller are recited as acting against each other. This teaching of Firm is not contested.

The Examiner takes note of a statement in Firm, which he selectively paraphrases, to provide support for the teaching that "cylinders in a wide press may be supported intermediately of their length to prevent springing and yielding that would interfere with the quality of the printing." citing Column 2, lines 14-20 of the Firm reference. From this assertion, the Examiner concludes that it would be obvious to modify Böck to provide the forme and other rollers, including inking rollers, with intermediate support rings that contact intermediate support rings on other cylinders "... and with the particular structure as taught by Firm."

The Examiner's assertion that it would be obvious, based on Firm, to form rollers including inking rollers with intermediate support rings is respectfully but strenuously

contested. Firm specifically teaches away from the structure of the subject invention, as recited in claim 41. In fact, Firm teaches an inverse arrangement in which the ink rollers not only do not have intermediate support rings but, in fact, are cut or divided intermediate their length.

Each of several forme cylinders A, A¹, and A² of the Firm patent are provided with an inking roller D. These inking rollers are "cut or divided intermediately of their length, as at d,.". The purpose of this cut or divide d is "... so that the intermediate bearing rings or surfaces a b of the form and impression cylinders may be kept free from being smeared and from smearing with ink the margins of the paper while the impressions are being taken.". This discussion is set forth at Column 3, lines 8-20 of the secondary Firm reference. It is thus very clear that Firm specifically teaches away from the provision of any intermediate support rings on the inking roller D.

Referring to the Examiner's paraphrasing of the discussion of Column 2, lines 14-20 of Firm, a complete review of that section shows that it is disclosed that "... the form and impression cylinders are supported intermediately of their lengths." Firm specifically recites that it is the form and impression cylinders that can be so supported, not cylinders in general.

This specific teaching of Firm is repeated in Column 1 at lines 22-35. The inclusion of intermediate rings is limited to the forme cylinder and to the impression cylinder.

It is very clear, from a complete reading of the Firm reference, that there is no teaching or suggestion of the provision of intermediate rings on an ink roller or an ink transfer cylinder. The Firm patent teaches the opposite structure. The Firm patent further specifically limits the use of intermediate rings to form cylinders and to impression cylinders. The Examiner's assertion that it would be obvious, in view of the teachings of Firm, to apply intermediate rings to an ink roller or to an ink transfer cylinder is directly in contradiction to the clear teachings of Firm.

Any modification of the Böck patent, to include the teachings of the Firm patent, would clearly exclude the ink application roller 3 of Böck and the anilox roller 4 of Böck from being provided with any type of intermediate support rings. If Firm and Böck were combined, the result would be an ink application roller 3, an anilox roller 4 or another ink transfer cylinder with a cut or a divide which would be located opposite to any intermediate ring that might be placed on the plate cylinder 1 or the transfer cylinder 2 of Böck. It is thus respectfully submitted that claim 41, as it is currently presented, is not obvious to one of skill in the art over the combination of Böck and Firm, as asserted by the Examiner.

The rejections of the various other claims, as set forth in the current Office Action, are essentially the same as the rejections made in the prior Office Action of March 6, 2003. The prior combination of Firm in view of Kusch has been replaced by the new combination of Böck in view of Firm. The arguments presented in the prior Amendment are equally applicable to the current rejections. Böck in view of Firm does

not render the subject invention, as recited in independent claim 41, unpatentable. The various elements added by dependent claims 42-46 and 49-56 may not all be unique by themselves. However, when combined with believed allowable claim 41, these dependent claims are also believed to be allowable. Thus reconsideration of the rejections of these dependent claims is also requested.

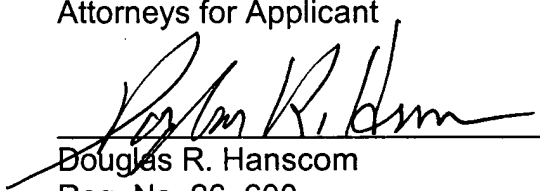
SUMMARY

Claims 43, 44 and 54 have been amended to overcome the Examiner's objections to the language of claims 43 and 54. Claims 41, 42, 45, 46, 49-53, 55 and 56 have been carried forward. It is believed that the claims now pending in the subject U.S. patent application are patentable over the prior art cited and relied on by the Examiner, taken either singly or in combination. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

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